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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,143

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Grant Stuart Richardson

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EXAMINER

DIXON, ANNETTE FREDRICKA

ART UNIT

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3771

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,143	Applicant(s) RICHARDSON ET AL.	
	Examiner Annette F. Dixon	Art Unit 3771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed on August 12, 2008.

Examiner acknowledges claims 1-12 and 14 are pending in this application, with claims 1, 8, and 12 having been currently amended, and claim 14 having been newly added.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 8, 9, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Cronjaeger (4,905,683).

As to Claim 1, Cronjaeger discloses a respirator (Figure 2) comprising a respirator face piece (2), a first sealing means (6) configured to form a seal on the face of a user surrounding an area of the user's face comprising the eyes, mouth and nose so as to define a first cavity (7) between the first sealing means (6), the respirator face piece (2) and the area of the user's face, a second sealing means (11) suitable for forming a seal on the face of the user so as to define a second cavity (4), the second cavity (4) being formed between the second sealing means (11), the first sealing means (6) and a portion of the face of the user, and optionally the respirator face piece (2), a respirator air inlet (16) for conducting inhaling air into the first cavity (7), and a respirator air outlet (18) for conducting exhaled air from the first cavity (7), and an air pressure

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supply means (the cooperative operation of the flap, 8, and the valve, 9) suitable for supply pressurized air to the second cavity (4) whereby in normal operation air is inhaled and exhaled solely through the first cavity (7) and so substantially no air pressure differential exists between the ambient atmosphere (supplied via connecting line, 14) and the second cavity (4) which will allow ambient air to enter the second cavity (4).

As to Claim 2, Cronjaeger discloses at least one eye piece (15) and a means for directing inhaling air over the at least one eye piece. The placement of the first sealing means (6) just above the eyes enables the pressurized air entering via 16 to be directed to the eye region. Essentially, the orientation of the first sealing means (6) operates as a baffle directing the gaseous flow across the eyes of the user.

As to Claim 3, Cronjaeger discloses the means for directing inhaling air over the at least one eyepiece (15) is capable of diverting some of the inhaling air directly to the oronasal region of the user. The operation of the device maintains the positive pressure within the first cavity (7) until the directional valve (17) is operated to enable the flow of gas to enter the oronasal region of the mask as represented by respirator face piece (2).

As to Claim 4, Cronjaeger discloses an exhaust deflection means capable of preventing exhaled air from contacting the at least one eyepiece (15). The flow of exhaust gases is controlled by the cooperative operation of the sealing perimeter of the respirator face piece (2), the directional valve (17), the flap (8), valve (9), and the exhalation valve (18). Together, these elements cooperatively function to deflect the movement of the exhaled air from contacting the eyepiece (15).

As to Claim 5, Cronjaeger discloses the exhaust deflection means comprises a third sealing means (represented by the sealing perimeter of the respirator face piece, 2, Column 3, Lines 65-67) that, in use, engages with the face of the user so as to form an ocular and oronasal cavities, the third sealing means (represented by the sealing perimeter of the respirator face piece, 2) being provided with means for permitting gaseous from the oronasal cavity to the ocular cavity (via valve 17). As shown in Figure 2, the ocular cavity is defined as the space within the first chamber (7) but external to the respirator face piece (2); while, the oronasal cavity is defined as the space within the respirator face piece (2). The connection between the ocular cavity and the oronasal cavity is bridged only by the directional valve (17) for introducing pressurized gas to the user.

As to Claims 8, 9, and 12, Cronjaeger discloses a sealing piece for a respirator (Figure 2), the sealing piece comprising a first (6), second (11) and third (located on 2, Column 3, Lines 65-67), each of the first and second portions comprising a substantially compliant material and having a respective sealing surface suitable for engagement with the face of the user so as to define a substantially sealed cavity between the sealing surface and the face of the user, the first and second portions (6 and 11, respectively) being mutually connected by and contacting the third portion (located on 2, Column 3, Lines 65-67) for attachment to the surface of the respirator, the sealing piece comprising a gas inlet (16) for allowing, in use, the supply of pressurized gas to the cavity, and wherein the first and second portions (6 and 11, respectively) are so shaped that, in use, the application of positive pressure in the cavity does not cause the

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seals to be broken. As shown in Figure 2, Cronjaeger discloses the orientation of the first and second portions and the connection of the first and second portions to the third portion as the user's chin.

As to Claim 10, Cronjaeger discloses the shape of the sealing piece around the face of the user to ensure a seal (Figure 2); yet does not expressly disclose the shape of the first and second portions to be "J" or "U" shaped. As seen in Figure 2, a portion of the first seal (6) near the chin of the user is constructed in a "J" shape, and a portion of the second seal (11) near the neck of the user is constructed in a "U" shape.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cronjaeger (4,905,683).

As to Claims 11 and 14, Cronjaeger discloses the sealing piece, yet does not expressly disclose the first and second portions comprise a reverse reflex seal. However, the ability of the seals to reverse reflex is a function of the flexibility of the material. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to change the material of the sealing piece's flexibility, since it has been held to be within the general skill of a worker in the art to select a

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known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cronjaeger (4,905,683) in view of Richardson et al. (7,013,891).

As to Claim 6, Cronjaeger discloses a respirator with an exhaust valve (18) yet does not expressly disclose the specific structural limitations as recited. However, at the time the invention was made the use of the specific structural limitations as recited were known. Specifically, Richardson teaches a valve assembly (at 18) comprising a valve body (Figure 1) having a valve assembly outlet and a valve assembly inlet and a valve cavity there between (Figure 1), a valve mechanism for permitting gaseous flow through the valve assembly inlet into the valve cavity and to the valve assembly outlet a continuous purge outlet means (at 30) connectable to an air pressure supply means (at 25 and 28), an air deflection means spatially arranged in the valve cavity relative to the valve mechanism and the purge outlet means such that on connection and activation of a suitable air pressure supply means, air is emitted from the purge outlet means and is incident on the air deflection means such that a curtain of air may be substantially maintained about the valve mechanism for the purpose of preventing overpressure and countering any leakage of the valve which may result in contamination (Column 4, Lines 29-42). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute Cronjaeger's valve with the valve

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assembly as taught by Richardson to maintain control of valve pressures and leakage; thereby preventing contamination.

As to Claim 7, Cronjaeger discloses a respirator with a first gaseous pathway (via 16) into the first cavity (7) and a second gas pathway (via 14) for communication with the air pressure supply means in the second cavity (4); yet does not expressly disclose the first and second pathways are filtered by a common filter. However, at the time the invention was made the use of a single filter to filter plural pathways was known. Specifically, Richardson discloses a single filter (7) to filter the air for plural gas pathways for the purpose of maintaining a clean environment for gases within the mask. (Column 3, Line 53; Column 4, Lines 11-14, Column 7, Lines 7-9, and 35-41).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Cronjaeger to include a singular filter for plural gas inlets, as taught by Richardson for the purpose of ensuring the gas provided to the user is clean.

Response to Arguments

7. Applicant's arguments with respect to claims 1-12 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reed (2,810,386) discloses an additional invention for ventilating

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the goggles in an oxygen mask. Allen et al. (5,720,281), Ansite et al. (3,833,935 and 3,910,269), Bahr et al. (5,687,713), Bonhomme et al. (6,520,177), Cappa et al. (4,961,420), Grove et al. (6,176,239), Jackson (6,016,802), Little (H883), McDonald et al. (5,664,566), Piorkowski et al. (4,676,236), Reischel et al. (5,924,420), Van Oosten et al. (5,078,130), Warncke (3,680,555) disclose additional inventions of respirators having plural seals around both the oronasal regions and ocular regions.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Annette F. Dixon whose telephone number is (571) 272-3392. The examiner can normally be reached on Monday thru Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Annette F Dixon
Examiner
Art Unit 3771

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